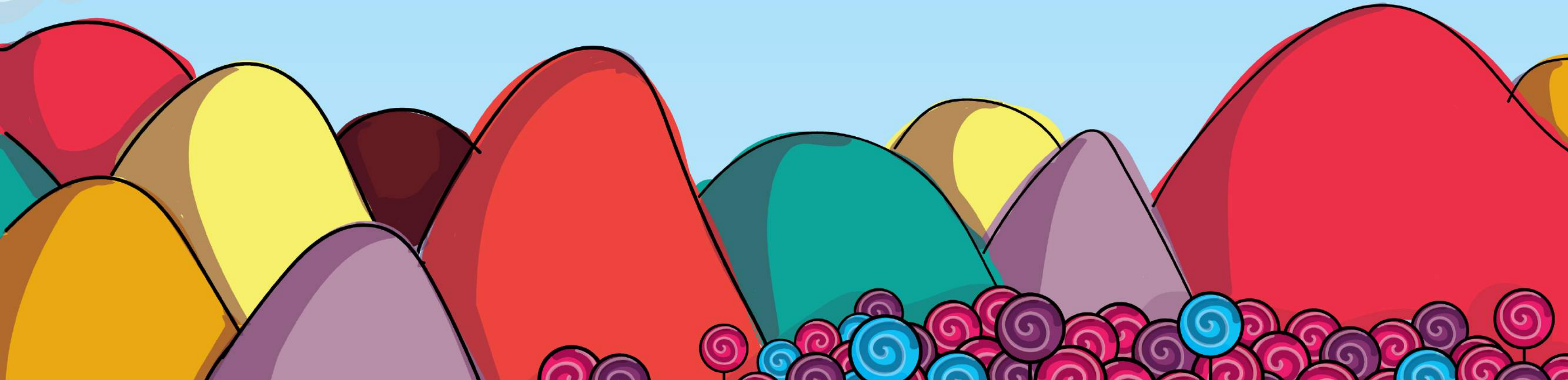




ADVENTURES

IN WEB ANIMATIONS



Level 3 – Keyframes

SECTION 3

More Advanced Keyframe Animations



Animating Our Form With Keyframes

ABOUT THE GAME



Welcome to Sweet Lands — a realm of legitimate sugary fun! As you journey to Frosting Fortress, you'll follow Lemony Brick Road, hop-butterscotch through Chocolate Mounds, and Ice Cream Float across Fruity Fish Sea. But beware of Licorice Twisters and Sugar Substitute Swamp, or you'll be slow as molasses. Hurry now — Frosting Fortress and a lifetime of truly tempting treats await!

PURCHASE THE GAME

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Buy Now!

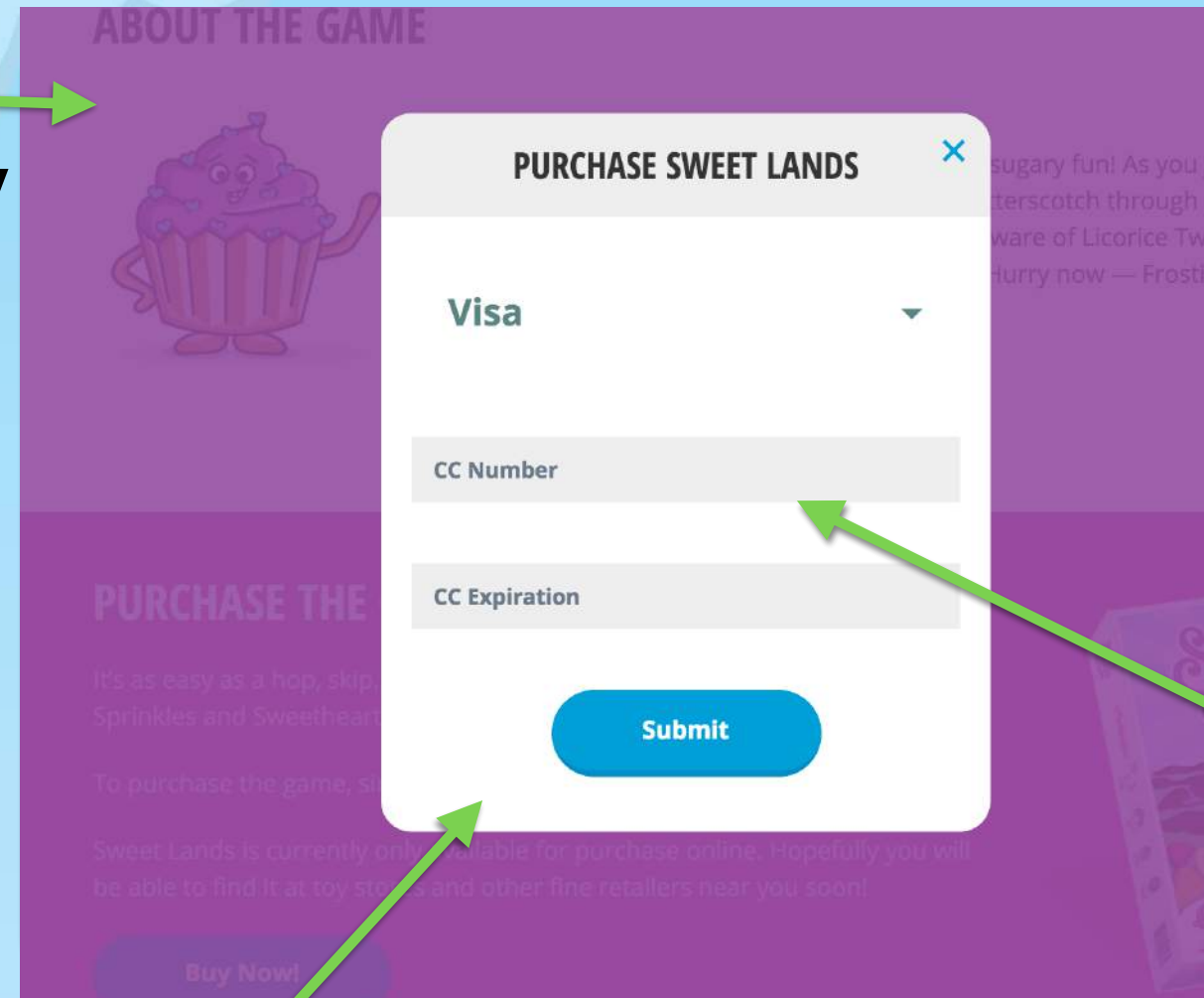


What Animations Do We Need to Create?

Multiple elements need to be animated to achieve this effect.

#1

fade in the overlay



#3

slide small and fade in the elements in the modal

#2 slide and fade in the modal

Fading in the modal-overlay

#1

fade in the overlay

CSS

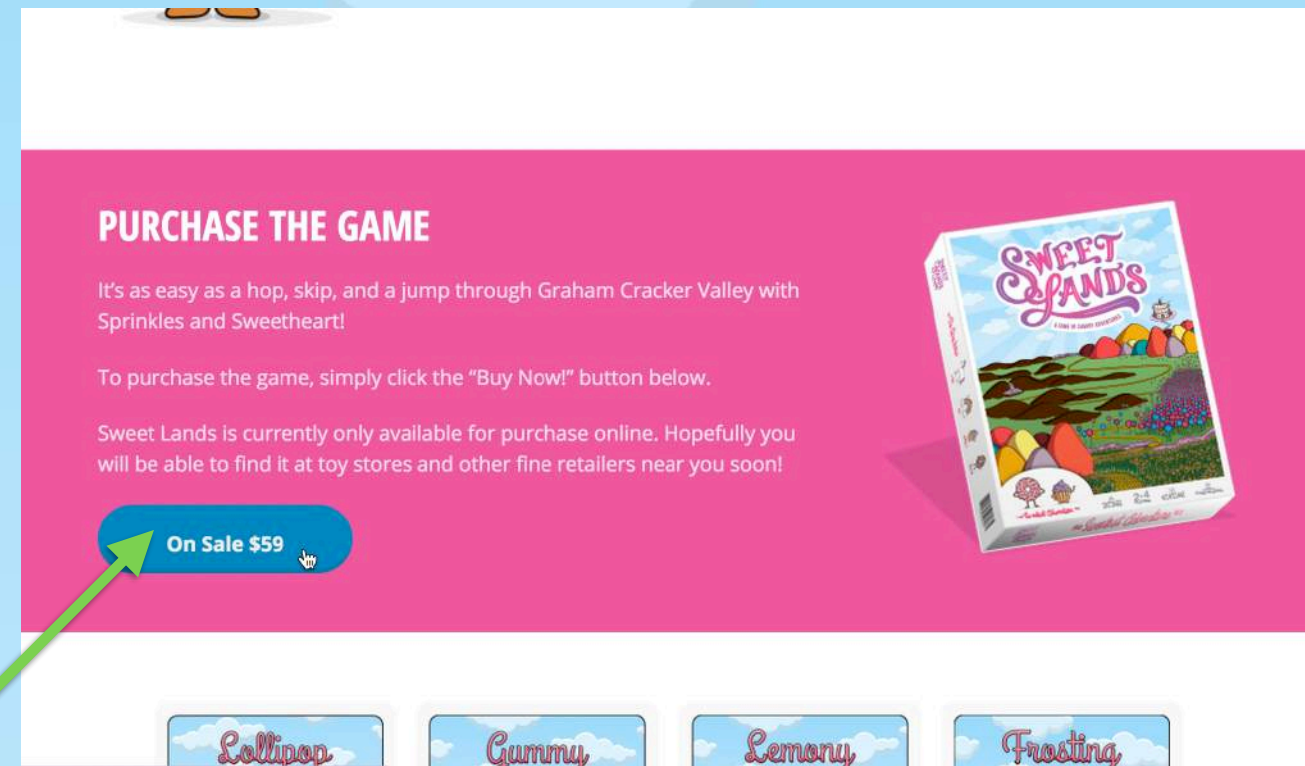
```
@keyframes fadeIn {  
  from {  
    opacity: 0;  
    visibility: hidden;  
  }  
  to {  
    opacity: 1;  
    visibility: visible;  
  }  
}
```

start hidden

end visible

CSS

```
.modal-overlay.active {  
  animation: fadeIn .25s;  
}
```



The modal is snapping back to its original state as soon as it is done.

Fill-mode Forwards

```
.modal-overlay.active {  
  animation: fadeIn .25s none;  
}
```

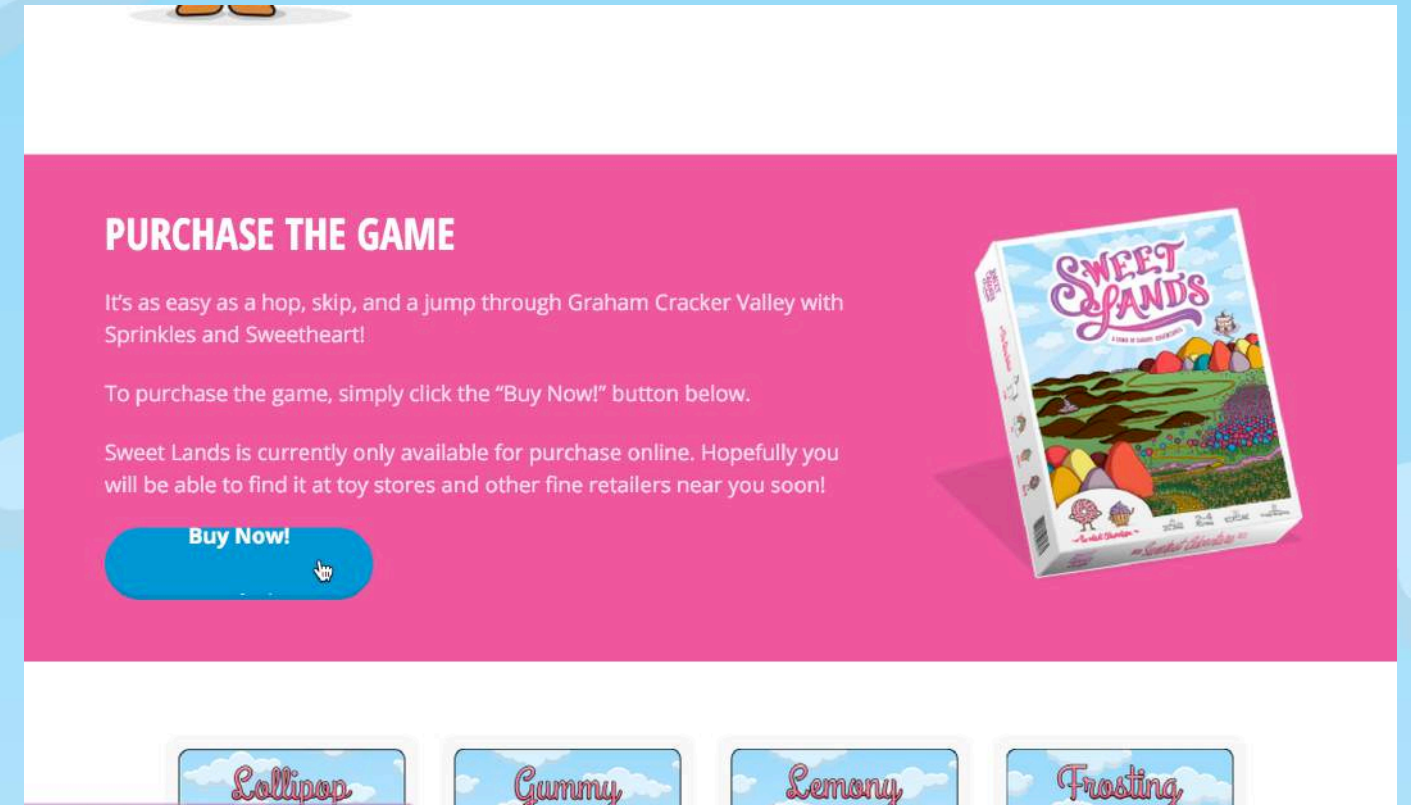
CSS

The default value for fill-mode is none.

```
.modal-overlay.active {  
  animation: fadeIn .25s forwards;  
}
```

CSS

Fill-mode forwards is used to set the animation's final state to the last specified step.



slideUp Keyframe for Entire Modal

CSS

```
@keyframes slideUp {  
  from {  
    transform: translateY(400px);  
  }  
  to {  
    transform: translateY(-300px);  
  }  
}
```

start low on the page

end higher on the page

CSS

```
.modal.active {  
  animation: slideUp .65s .5s forwards;  
}
```

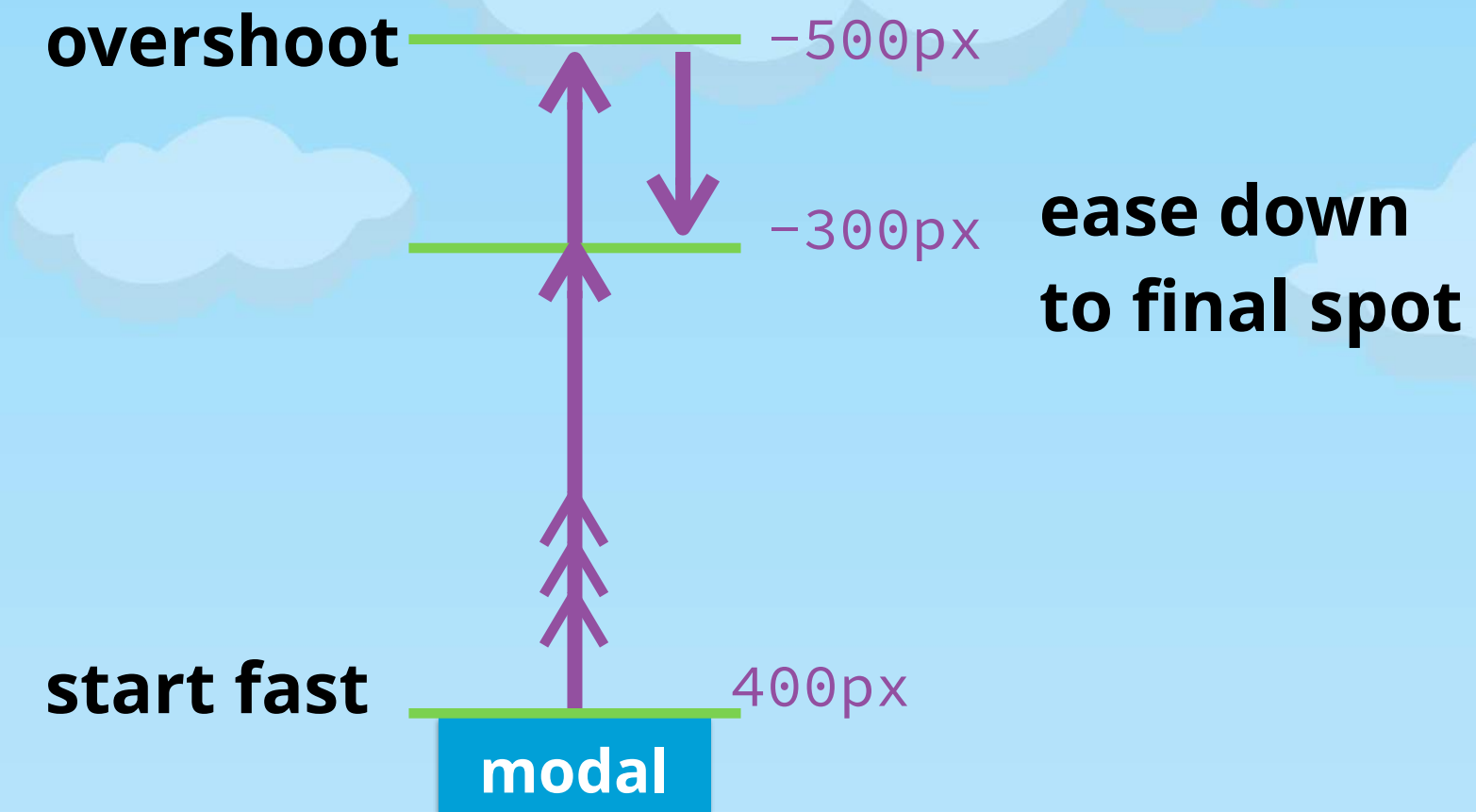
Timing Functions for the Win

When animating a single property, simply specify start/end state and use a timing function to create the desired timing.

```
@keyframes slideUp {  
  from {  
    transform: translateY(400px);  
  }  
  to {  
    transform: translateY(-300px);  
  }  
}
```

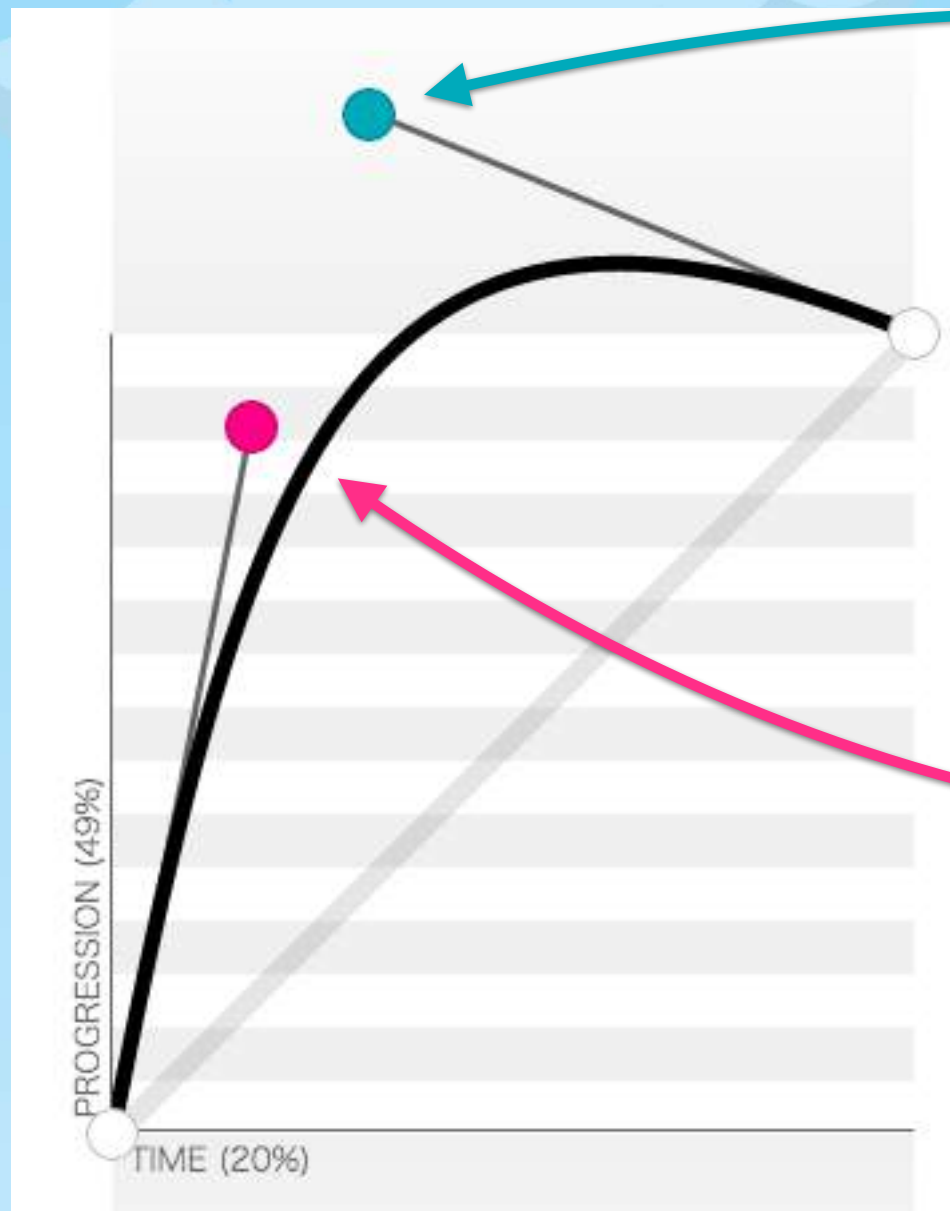
custom cubic-bezier timing function

```
.modal.active {  
  animation: slideUp .65s .5s cubic-bezier(0.17, 0.89, 0.32, 1.28) forwards;  
}
```



What Is a Cubic Bezier?

WHAT ON EARTH ARE THESE NUMBERS?!



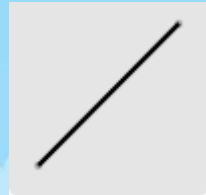
`cubic-bezier(` **.17** **.89** **.32** **1.28** `)`

x, y

x, y

All Timing Functions Are Bezier at Heart

cubic Bezier curve



linear



ease



ease-in



ease-out



ease-in-out

linear cubic-bezier(0, 0, 1, 1)

Linear

ease cubic-bezier(.25, 1, .25, 1)

Ease

ease-in cubic-bezier(.42, 0, 1, 1)

Ease-In

ease-out cubic-bezier(0, 0, .58, 1)

Ease-Out

ease-in-out cubic-bezier(.42, 0, .58, 1)

Ease-In-Out

Sliding and Fading in the Modal

Assign the fadeIn animation to our .active modal as well.

```
.modal.active {  
  animation: slideUp .65s .5s cubic-bezier(...) forwards,  
            fadeIn .65s .5s forwards;  
}
```

CSS

PURCHASE SWEET LANDS

Visa

CC Number

CC Expiration

Submit

Finishing Form By Animating the Stuff Inside

Creating the `slideUpSmall` animation

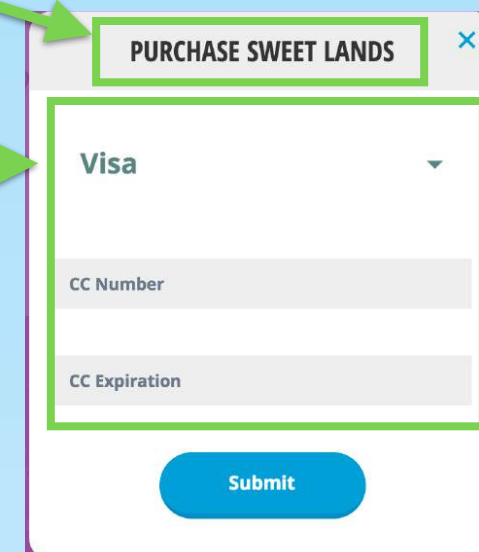
CSS

```
@keyframes slideUpSmall {  
  from {transform: translateY(80px);}  
  to {transform: translateY(0);}  
}
```

Assigning `slideUpSmall` and `fadeIn` to modal innards when modal is active

CSS

```
.modal-header h3 {  
  animation: slideUpSmall 0.25s 0.75s forwards,  
            fadeIn 0.25s 0.75s forwards;  
}  
  
.modal.active .form-field {  
  animation: slideUpSmall 0.25s 0.8s forwards,  
            fadeIn 0.25s 0.8s forwards;  
}
```



Our Form Looks Hot!



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